



DEPARTMENT OF ENERGY

10 CFR Part 430

[EERE-2023-BT-PET-0003]

Energy Conservation Program for Consumer Products: Soft Lights Foundation; Petition for Repeal

AGENCY: Office of Energy Efficiency and Renewable Energy, Department of Energy.

ACTION: Final denial of petition for repeal.

SUMMARY: This document announces and provides the reasoning for the U.S. Department of Energy's ("DOE's") denial of a petition from the Soft Lights Foundation ("Soft Lights") requesting the repeal of two final rules published by DOE on May 9, 2022: the final rule codifying the 45 lumens per watt backstop requirement for general service lamps that Congress prescribed in the Energy Policy and Conservation Act, as amended ("EPCA") and the final rule adopting amended definitions of general service lamps ("GSLs") and general service incandescent lamps ("GSILs") and associated supplemental definitions.

DATES: This final denial of petition for repeal is applicable on [INSERT DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].

ADDRESSES: *Docket:* For access to the docket to read the petition, go to the Federal eRulemaking Portal at www.regulations.gov/#!/docketDetail;D=EERE-2023-BT-PET-0003. In addition, electronic copies of the Petition are available online at DOE's energy conservation standards for general service lamps website at www1.eere.energy.gov/buildings/appliance_standards/standards.aspx?productid=4.

FOR FURTHER INFORMATION CONTACT: Mr. Bryan Berringer, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Building Technologies Office, EE-5B, 1000 Independence Avenue, SW., Washington, DC, 20585-0121. Telephone: (202) 586-5000. E-mail: ApplianceStandardsQuestions@ee.doe.gov.

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I. Overview

A. *Authority and Background*

EPCA¹ authorizes DOE to regulate the energy efficiency of a number of consumer products and certain industrial equipment. (42 U.S.C. 6291-6317). Title III, Part B² of EPCA established the Energy Conservation Program for Consumer Products Other Than Automobiles. (42 U.S.C. 6291-6309) These products include GSLs, the subject of this document. (42 U.S.C. 6291(30)(BB))

On May 9, 2022, DOE published a final rule adopting revised definitions of GSL and GSIL and associated supplemental definitions. 87 FR 27461 (“May 2022 Definition Final Rule”). In the May 2022 Definition Final Rule, pursuant to its authority in 42 U.S.C. 6295(i)(6)(A)(i)(II), DOE removed from the definition of GSIL the exemptions for certain incandescent lamps that are used to satisfy lighting applications traditionally served by GSILs and included those lamps in the definition of GSIL and GSL. On that same day, DOE also

¹ All references to EPCA in this document refer to the statute as amended through the Infrastructure Investment and Jobs Act, Pub. L. 117–58 (Nov. 15, 2021).

² For editorial reasons, upon codification in the U.S. Code, Part B was redesignated Part A.

published a final rule codifying the 45 lumens per watt (“lm/W”) statutory backstop requirement for GSLs pursuant to its authority in 42 U.S.C. 6295(i)(6)(A)(v). 87 FR 27439 (“May 2022 Backstop Final Rule”). The statutory backstop requirement prohibits the sale of any GSL that does not meet a minimum efficacy standard of 45 lm/W. 10 CFR 430.32(dd). In the May 2022 Backstop Final Rule, DOE determined the backstop requirement applies because DOE failed to complete a rulemaking for GSLs in accordance with certain statutory criteria in 42 U.S.C. 6295(i)(6)(A). 87 FR 27439.

B. Soft Lights Petition

The Administrative Procedure Act, 5 U.S.C. 551 *et seq.*, provides, among other things, that “[e]ach agency shall give an interested person the right to petition for the issuance, amendment, or repeal of a rule.” (5 U.S.C. 553(e)) DOE received a petition from Soft Lights on December 24, 2022 requesting that, DOE repeal the May 2022 Definition Final Rule and the May 2022 Backstop Final Rule (hereafter referred to as the “Soft Lights Petition”). In its petition, Soft Lights asserts that the purpose of a GSL is to provide safe, uniform illumination with light that disperses over distance following the inverse square law and that the May 2022 Backstop Final Rule sets a 45 lm/W minimum requirement for GSLs without setting quality metrics for the lamps. Further, Soft Lights contends that the May 2022 Definition Final Rule classifies light-emitting diodes (“LED”) lamps as a GSL even though LED lamps do not provide uniform illumination, do not emit light that disperses following the inverse square law, and are not regulated with regards to comfort, health or safety by the U.S. Food and Drug Administration (“FDA”). Soft Lights states in its petition that due to the failure of the May 2022 Backstop Final Rule and May 2022 Definition Final Rule to ensure uniform illumination, inverse square law dispersion, and the protection of the public health and welfare, these two rules must be repealed. (Soft Lights Petition, No. 1 at pp. 1-2) Further, Soft Lights argues that the term “energy efficiency” as defined by EPCA means providing the same quality of service using less energy

and if a statute or rule fails to ensure this, it must be rejected as invalid. Soft Lights also contends that an energy efficiency statute that fails to consider the impacts on human health/public health must be rejected as illegitimate. (Soft Lights Petition, No. 1 at pp. 3,4)

C. Synopsis of the Final Denial of Petition for Repeal

After carefully considering Soft Light’s petition, DOE has determined that granting Soft Light’s request to withdraw the May 2022 Backstop and Definition Final Rules would be inconsistent with statutory law. In its petition, Soft Lights states that Congress was misinformed about the technical nature of LEDs and made the error of including LEDs in the definition of GSL in EPCA. (Soft Lights Petition, No. 1 at pp. 7-8) Soft Lights further asserts that the 45 lm/W backstop requirement is based on Congress’s flawed understanding of how LEDs emit light and the invalid assignment of LEDs to the GSL classification. (Soft Lights Petition, No. 1 at p. 9) However, the inclusion of general service LED lamps as GSLs and the 45 lm/W backstop requirement for GSLs are prescribed by statute, and DOE does not have the authority to overturn statutory requirements enacted by Congress. (42 U.S.C. 6291(30)(BB); 42 U.S.C. 6295(i)(6)(A)(v)) Further, DOE declines to comment on Soft Light’s assertion that the FDA has failed to publish comfort, health or safety regulations for LEDs. These arguments are not for consideration by DOE. DOE is not aware of any prohibition on the use of LED lighting that would have impacted its rulemakings. DOE further discusses its reasons for denying the Soft Lights petition in the following discussion.

II. DOE Analysis and Discussion

A. May 2022 Definition Final Rule

In its petition, Soft Lights asserts that the May 2022 Definition Final Rule incorrectly classifies LED lamps as GSLs. (Soft Lights Petition, No. 1 at pp. 1-2) It also asserts that, in the Energy Independence and Security Act of 2007 (Pub. L. 110–140) (“EISA”), Congress made the

error of including the term “general service light-emitting diode” in the statute without defining the device itself, and then further erred by classifying the device as a GSL. Specifically, Soft Lights states that both DOE and Congress are under the mistaken belief that LEDs emit uniform luminance and visible radiation that disperses following an inverse square law and are a replacement for an incandescent lamp. Soft Lights further contends that, due to this mistaken belief, DOE has gone back and forth on its understanding of what can be classified as a general service lamp in its rulemakings to revise the GSL and GSIL definitions. (Soft Lights Petition, No. 1 at pp. 7-8, 11,12)

Contrary to Soft Lights assertion, DOE’s withdrawal rulemakings regarding the definition of GSL were not due to DOE’s misunderstanding of whether an LED can be classified as a GSL. Rather, DOE’s change in position related to its interpretation of whether it could include categories of lamps in the definition of GSL that would otherwise be excluded under 42 U.S.C. 6291(30)(BB)(ii). Amendments to EPCA in EISA directed DOE to conduct two rulemaking cycles to evaluate energy conservation standards for GSLs, and, among other things, determine whether the exemptions for certain incandescent lamps should be maintained or discontinued. (42 U.S.C. 6295(i)(6)(A)-(B)) Pursuant to this authority, DOE conducted a rulemaking to establish revised regulatory definitions for GSLs and GSILs. *See* 82 FR 7276 (Jan. 19, 2017); 82 FR 7322 (Jan. 19, 2017). Subsequently, DOE conducted a rulemaking in which it withdrew these revised definitions before they took effect. 84 FR 46661 (Sept. 5, 2019, “September 2019 Withdrawal Rule”). Upon further review and consideration, DOE adopted the revised definitions of GSL and GSIL in the May 2022 Definition Final Rule. In that final rule, DOE explained that EPCA directs DOE to amend the statutory definitions of GSL and GSIL by regulation to achieve the energy savings for general lighting that Congress intended in EPCA generally and EISA specifically. (42 U.S.C. 6295(i)(6)(A)(i)(II) and 42 U.S.C. 6291(30)(BB)(i)(IV); 87 FR 27461, 27466) By withdrawing the expanded definitions of GSL

and GSIL in the September 2019 Withdrawal Rule, DOE failed to give meaningful effect to this statutory direction. 87 FR 27461, 27466. Therefore, DOE's withdrawal rulemakings regarding the definition of GSLs were based on a misreading of EPCA's statutory direction and not a question of whether an LED lamp should be classified as a GSL.

In fact, the amendments DOE adopted in the May 2022 Definition Final Rule do not classify general service LED lamps as GSLs. Rather, Congress classified LEDs as GSLs previously through EISA, which amended EPCA to define the term "general service lamp" and specified it to include "general service light-emitting diode (LED or OLED) lamps." (42 U.S.C. 6291(30)(BB), Title III, Subtitle B, Section 321 of EISA) A final rule technical amendment published on March 23, 2009, incorporated into DOE's regulations EPCA's definition of "general service lamp," providing that it includes general service incandescent lamps, compact fluorescent lamps, general service light-emitting diode lamps, organic light-emitting diode lamps, and any other lamps that the Secretary determines are used to satisfy lighting applications traditionally served by general service incandescent lamps; however, the definition didn't apply to any lighting application or bulb shape excluded from the "general service incandescent lamp" definition, or any general service fluorescent lamp or incandescent reflector lamp. 74 FR 12058, 12065.

The amendments adopted in the May 2022 Definition Final Rule made no changes to the statutory inclusion of general service light-emitting diode lamps and organic light-emitting diode lamps as GSLs and the repeal of this rule would not remove the statutory inclusion of LED lamps as a type of GSL. 87 27461, 27480-27481; 10 CFR 430.2. Further, the language in EPCA is clear that Congress intended general service light-emitting diode (LED or OLED) lamps to be included in the definition of "general service lamp." (42 U.S.C. 6291(30)(BB)(i))

B. May 2022 Backstop Final Rule

Soft Lights asserts in its petition that DOE went back and forth on its decision on whether the 45 lm/W backstop requirement was triggered because of Congress' flawed understanding of how LEDs emit light and Congress' error in including the term "general service light emitting diode" as a GSL. (Soft Lights Petition, No. 1 at p. 11) Further, Soft Lights contends that there is no technology that meets Congress' criteria of a GSL that provides the same quality of service as an incandescent with 45 lm/W efficacy and therefore, DOE is not obligated to, nor can it implement the 45 lm/W backstop requirement. (Soft Lights Petition, No. 1 at p. 9) Specifically, Soft Lights argues that LED technology does not meet the necessary criteria, stating that LEDs emit a non-uniform luminance and have blue wavelength and flicker that are harmful to human health. (Soft Lights Petition, No. 1 at pp. 16-24) Soft Lights contends that to set energy efficiency standards DOE must include light quality metrics paired with luminous efficacy, citing uniform illumination, inverse square law dispersion, a smooth continuous spectral distribution from low blue to high red, and analog flicker characteristics. (Soft Lights Petition, No. 1 at p. 16) Soft Lights also argues that the 45 lm/W backstop requirement will force manufacturers to produce LED lamps, even though the FDA has not stated LED visible radiation is safe and has not published comfort, health, or safety regulations for LED products. (Soft Lights Petition, No. 1 at p. 3)

EPCA directs DOE to conduct two rulemaking cycles to evaluate energy conservation standards for GSLs. (42 U.S.C. 6295(i)(6)(A)-(B)) For the first rulemaking cycle, EPCA directs DOE to initiate a rulemaking process prior to January 1, 2014, to determine whether: (1) To amend energy conservation standards for GSLs and (2) the exemptions for certain incandescent lamps should be maintained or discontinued. (42 U.S.C. 6295(i)(6)(A)(i)) The rulemaking is not limited to incandescent lamp technologies and must include a consideration of a minimum standard of 45 lm/W for GSLs. (42 U.S.C. 6295(i)(6)(A)(ii)) EPCA provides that if the

Secretary determines that the standards in effect for GSILs should be amended, a final rule must be published by January 1, 2017, with a compliance date at least 3 years after the date on which the final rule is published. (42 U.S.C. 6295(i)(6)(A)(iii)) The Secretary must also consider phased-in effective dates after considering certain manufacturer and retailer impacts. (42 U.S.C. 6295(i)(6)(A)(iv)) If DOE fails to complete a rulemaking in accordance with 42 U.S.C. 6295(i)(6)(A)(i)-(iv), or if a final rule from the first rulemaking cycle does not produce savings greater than or equal to the savings from a minimum efficacy standard of 45 lm/W, the statute provides a “backstop” under which DOE must prohibit sales of GSLs that do not meet a minimum 45 lm/W standard. (42 U.S.C. 6295(i)(6)(A)(v)) As a result of DOE’s failure to complete a rulemaking in accordance with the statutory criteria in 42 U.S.C. 6295(i)(6)(A), DOE codified the backstop requirement in the May 2022 Backstop Final Rule. (87 FR 27439, 27442-27443)

As explained in the May 2022 Backstop Final Rule, DOE was delayed in certifying the backstop requirement for GSLs by two years due to its evolving position under the first cycle of GSL rulemaking under 42 U.S.C. 6295(i)(6)(A). This related to DOE’s changing interpretation of whether the statutory backstop had been triggered and, contrary to Soft Lights assertion, had no bearing on whether LEDs were properly classified as GSLs under EPCA. As previously stated, the inclusion of LEDs in the definition of GSL is a clear statutory requirement that is not subject to agency discretion. Further, the 45 lm/W backstop requirement is not technology specific, and DOE is not banning incandescent technology. Thus, while Soft Lights is correct that there are currently no GSILS on the market that can meet the 45 lm/W requirement, this does not foreclose an incandescent from being invented, and sold, in the future that could meet the 45 lm/W requirement. Lastly, even if the 45 lm/W backstop had not been triggered, the rulemaking that DOE was required to undertake in 42 U.S.C. 6295(i)(6)(A)(i) was to consider standards for GSLs. Congress had already defined GSLs in EPCA as including LEDs and

directed that the rulemaking “shall not be limited to incandescent lamp technologies.” (42 U.S.C. 6295(i)(6)(A)(ii)(I)) Thus, DOE had existing statutory authority, aside from the backstop requirement, to establish energy conservation standards for GSLs, which, by statute, include LEDs.

C. Adverse Health Effects of LEDs

In its petition, Soft Lights asserts that DOE’s review of the health effects of LED lamps was inadequate and negligent. Further, Soft Lights contends that the FDA has sole authority to regulate visible radiation from electronic products and DOE was negligent in mandating the 45 lm/W backstop requirement for GSLs without ensuring that the FDA publishes comfort, health, and safety regulations for LED products. (Soft Lights Petition, No. 1 at p. 2-3, 13, 28) Soft Lights contends that LED lamps pose a danger to public health and LED visible radiation causes serious adverse health effects and creates discriminatory barriers. (Soft Lights Petition, No. 1 at p. 41)

DOE notes that the FDA has authority to regulate certain aspects of LED products as radiation-emitting devices and has issued performance standards for certain types of light-emitting products.³ Currently, there is no FDA performance standard for LED products in part 1040. DOE acknowledges that Soft Lights expresses in its petition health concerns that Soft Lights associates with LEDs. However, such concerns are not for the consideration of DOE. DOE is not currently aware, nor was it at the time the May 2022 Definition and Backstop Final Rules were issued, of any prohibition on the use of LED lighting that would have impacted its rulemaking.

III. Denial of Petition

³ See, the Federal Food, Drug and Cosmetic Act section 531 *et seq.*; 21 U.S.C. 360KK; and 21 CFR part 1040.

Taking into account all of the factors discussed previously and consistent with the requirements under EPCA, DOE is hereby denying Soft Light's petition for rulemaking.

IV. Approval of the Office of the Secretary

The Secretary of Energy has approved publication of this final denial of petition for repeal.

Signing Authority

This document of the Department of Energy was signed on March 14, 2023, by Francisco Alejandro Moreno, Acting Assistant Secretary for Energy Efficiency and Renewable Energy, pursuant to delegated authority from the Secretary of Energy. That document with the original signature and date is maintained by DOE. For administrative purposes only, and in compliance with requirements of the Office of the Federal Register, the undersigned DOE Federal Register Liaison Officer has been authorized to sign and submit the document in electronic format for publication, as an official document of the Department of Energy. This administrative process in no way alters the legal effect of this document upon publication in the *Federal Register*.

Signed in Washington, DC, on March 15, 2023.

Treena V. Garrett,
Federal Register Liaison Officer,
U.S. Department of Energy.